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United States Patent [19]

Swift et al.

[11] **Patent Number:** **5,336,744**[45] **Date of Patent:** **Aug. 9, 1994**[54] **PROCESS FOR POLYMERIZATION OF
ITACONIC ACID**[75] **Inventors:** **Graham Swift**, Blue Bell; **Kathryn M.
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Philadelphia, Pa.[21] **Appl. No.:** **32,221**[22] **Filed:** **Mar. 17, 1993**[51] **Int. Cl.⁵** **C08F 22/02**[52] **U.S. Cl.** **526/318.2; 526/93;**
526/90[58] **Field of Search** 526/318.2, 90, 93[56] **References Cited****U.S. PATENT DOCUMENTS**3,132,122 5/1964 Dunay et al. 526/90
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5,100,980 3/1992 Hughes et al. 526/318.2*Primary Examiner*—Joseph L. Schofer*Assistant Examiner*—N. Sarofin*Attorney, Agent, or Firm*—Marvin J. Powell; David T.
Banchik[57] **ABSTRACT**

Polymers of itaconic acid are formed at high conversion by an aqueous polymerization process of partially neutralized monomer solution, water, polyvalent metal ion and initiator.

Polymers produced according to the process of the invention are useful as detergent additives, scale inhibitors and removers, sequestrants, yarn sizings, deflocculating agents, de-inking agents, suspending agents and dispersing agents.

8 Claims, No Drawings